

The background of the slide is a photograph of several oat stalks. The stalks are thin and light brown, with numerous small, elongated oat grains attached. They are set against a clear, light blue sky. The text is overlaid on this image.

T3/Oat tutorials

Tutorial 3: Uploading phenotype trial descriptions and data

<https://triticeaetoolbox.org/oat/>

T3 phenotype trial reports

- The trial name is the unique identifier for a T3 phenotype trial
- Trial information must be uploaded first
- Trial means can then be uploaded using a separate template
- Additional raw data can also be attached to the trial record
- Line information must be uploaded before trial means are submitted (see T3/Oat tutorial 1)

Trial UEOPN_2015_Saskatoon

Experiment	Uniform Early Oat Performance Nursery
Trial Year	2015
Location (Latitude/Longitude)	Saskatoon, SK-CAN (52.153467 / -106.528719)
Collaborator	Aaron D. Beattie
Planting Date	2015-05-18
Harvest Date	2015-09-21
Begin Weather Date	
Greenhouse?	no
Seeding Rate (plants/m ²)	254
Experiment Design	RCBD
Plot Size (m ²)	5.52
Harvest Area (m ²)	4.32
Irrigation	no
Number of Entries	24
Number of Replications	3
Comments	The UMOPN was in a poor sport so we only harvested the first rep. We had problems with compacted soil in the last two reps. Soil moisture was alright at seeding but we only had 46 mm of rain until the end of July so the growing season was pretty dry.
Data Program	University of Saskatchewan CDC: data

Line Name	GRIN Accession	Plant Height (cm)	Thousand Kernel Weight (g)	Test Weight (g l-1)	Grain Yield (g m-2)	Grain Width 5.5/64 Plump (%)	Grain Width 5.0/64 Thin (%)	Check
OTEE	Clav 9086	81.8	27	523.0000	253.4770	31.100	16.140	1
IL08-2010		73.5	35	540.3000	250.3100	78.600	4.990	0
IL09-5745		74.3	29	511.6000	224.6600	63.600	7.600	0
IL11-2353		77.8	31	537.1000	282.0830	52.200	7.400	0
IL11-5748		77.8	39	531.0000	240.5200	84.400	3.600	0

Tutorial 3: Outline

1. Downloading the data submission templates
2. Completing the trial description template
3. Completing the trial means template
4. Test loading the templates
 1. Trial description template
 2. Trial means template
5. Submitting the completed templates to T3/Oat

Section 1: Downloading the data submission templates

Choose the About T3 menu> Data Submission

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March 2016

Genotype Data

Home: T3/Oat

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Section 1: Downloading the data submission templates

Select the “Trial description” and the “Trial means” data templates from the list to download the Excel templates

Data Templates

Topic	Link	Version	Contents
Germplasm Lines	Oat	29Jan15	Name, synonyms, pedigree for oat
	Genetic Characters	12Dec13	Genes, QTLs, trait-linked markers, market class
	Name conversion macros	24Sep11	Excel spreadsheet to convert germplasm names to T3 formatted names.
Phenotyping	Traits	16Sep11	Please discuss with the curators before adding a new trait.
	Trial description	04Dec12	Location, planting date, experimental design...
	Trial means	03Dec15	Values for all traits for test lines and checks, summary statistics
	Plot-Level Results	22Jul13	Trait values for each plot
	Fieldbook	07Apr14	Field map
Canopy Spectral Reflectance	CSR System	28Mar13	Instrument annotation

Section 2: Completing the trial description template

The notes section contains nearly all of the information needed to fill out the trial description template, apart from:

- Data program code
- Existing T3 experiment names

This information can be found under the “About T3” menu

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Trial Submission Form														
2	Template version	4Dec12													
3	Crop	oat													
4	Breeding Program Code	CDC-D													
5		TRIAL #1	TRIAL #2												
6	Trial Name	UEOPN_2015_Saskatoon	UEOPN_2014_Saskatoon												
7	Trial Year	2015	2014												
8	Experiment Name	Uniform Early Oat Perform	Uniform Early Oat Performance Nursery												
9	Location	Saskatoon, SK-CAN	Saskatoon, SK-CAN												
10	Latitude of field	52.153467	52.146691												
11	Longitude of field	-106.528719	-106.540644												
12	Collaborator	Aaron D. Beattie	Aaron D. Beattie												
13	Trial description														
14	Planting date	5/18/2015	5/17/2014												
15	Harvest date	9/21/2015	9/1/2014												
16	Begin weather date														
17	Greenhouse trial? (yes or no)	no	no												
18	Seeding rate (seeds/m ²)	254	254												
19	Experimental design	RCBD	RCBD												
20	Number of entries	24	23												
21	Number of replications	3	3												
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24	Irrigation (yes or no)	no	no												
25	Other remarks	The UMOPN was in a pod	We had delayed seeding due to a wet spring at												
26															

Notes
Row headings with a green background show the required fields. Required fields also have an asterisk (*) in these notes.

***Breeding Program Code:** Program responsible for data collection. Codes can be found under the About T3 menu> Contributing data programs. Data program codes are located in the second table under the heading 'Data programs' and consist of a 3-letter code followed by "-D". All of the trials loaded in the same Trial Submission document must have the same breeding program code.
***Trial Name:** Format is "Experiment_YYYY_Location". You are free to choose an experiment name, which should be short but descriptive, and can be used as an additional method of linking trials together later in the form. YYYY= trial year; for winter trials that are planted and harvested in different calendar years please use the year that the trial was harvested. Location= specific location of the trial, usually a nearby settlement. The trial name in its entirety should be unique.
***Trial Year:** Year in which the trial was or would have been harvested.
Experiment Name: Experiment is one hierarchical level above trial and can be used to link trials in T3/Oat. The drop down menu "Search Trials by Experiment" on the T3/Oat homepage can be used to view existing experiments. Experiment name should be self-explanatory but it can be coded when used as part of a trial name (see examples in this template).
***Location:** Format for USA and Canada is <city/town>, <2 letter state/province abbreviation> followed by "-CAN" or "-USA". Format for trials conducted in other countries is <city/town>, <country>.
***Latitude and Longitude of field:** Decimal degrees format without a degree symbol. There is a converter at <http://boulter.com/gps/>. GPS coordinates can be found by address at <http://itouchmap.com/latlong.html>.
***Collaborator:** Name of principal scientist.
Experiment description: Self-assigned. Limit 300 characters.
***Planting date:** This should be the **one** date on which planting was started. Use the Excel "Text"

Section 2: Completing the trial description template

To find the data program code

- Choose the About T3 menu > Contributing Data Programs

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Section 2: Completing the trial description template

- The 4-letter data program code can be found in the **second table** on this page
- Contact the curator if you do not find an appropriate code

Data programs contribute results of phenotype trials or genotyping experiments.

Data Program	Code	Collaborator	Description	Institution
<u>AAFC Brandon: data</u>	MTB-D	Jennifer W. Mitchell-Fetch	Agriculture and Agri-Food Canada (AAFC) Brandon Research Centre, MB-CAN.	Agriculture and Agri-Food Canada
<u>AAFC Lacombe: data</u>	LAC-D	Jennifer W. Mitchell-Fetch	Agriculture and Agri-Food Canada (AAFC) Lacombe Research Centre, AB-CAN.	Agriculture and Agri-Food Canada
<u>AAFC Ottawa: data</u>	OTW-D	Weikai Yan	Agriculture and Agri-Food Canada (AAFC) Eastern Cereal and Oilseed Research Centre (ECORC) in Ottawa, ON-CAN.	Agriculture and Agri-Food Canada
<u>AAFC Ottawa: genotype data</u>	OTW-GD	Nicholas A. Tinker	Agriculture and Agri-Food Canada (AAFC) Eastern Cereal and Oilseed Research Centre (ECORC) in Ottawa, ON-CAN.	Agriculture and Agri-Food Canada
<u>ARI Kromeriz, Ltd., Czech Republic: data</u>	KRO-D	M. Kadlikova	Agricultural Research Institute Kromeriz, Ltd.	Agricultural Research Institute Kromeriz, Ltd.
<u>ASU, Lithuania: data</u>	ASU-D	A. Sliesaravicius	Aleksandras Stulginskis University, formerly the Lithuanian University of Agriculture.	Aleksandras Stulginskis University
<u>Auburn University: data</u>	AUB-D	Kathryn Glass	Auburn University, AL-USA.	Auburn University

Section 2: Completing the trial description template

To find existing T3/Oat experiment names

- Choose the About T3 menu > Content Status

T3/Oat

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What's New

March 2016

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[Oat Global](#) website, a project initiated in January 2014 by

Section 2: Completing the trial description template

The Content Status page generates an up-to-date report that summarizes the content available in T3/Oat

- Select “List all experiments” to generate a list of current T3/Oat experiments

The screenshot shows the T3/Oat website. At the top, there is a green header with the 'T3/Oat' logo on the left and a 'Contact Us' button on the right. Below the header is a navigation bar with links: Home, Select, Analyze, Download, Manage, and About T3. The main content area is divided into two columns. The left column contains 'Quick Links' (Login/Register), 'Current selections' (Lines: 0, Markers: All, Traits: 0, Phenotype Trials, Genotype Experiments), and a 'Quick search...' box. The right column features a 'T3oat Data Submission Report 2016-03-30' section with a 'Download tables to MS Excel' button. Below this is a table titled 'Experiments and Trials' with four rows: Phenotype Experiments (8), Phenotype Trials (1103), Genotype Trials (19), and CAP data programs (44). Each row has a link to 'List all experiments' or 'List all trials'. A red arrow points from the bullet point in the text above to the 'List all experiments' link. At the bottom, there is a 'What's New' section for March 2016, titled 'Genotype Data', and a 'Lines' section with a table showing 'Line records' (16394) and 'Breeding programs' (86). A link 'List or query line names by creation date' is also present.

T3/Oat

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Current selections:
Lines: 0
Markers: All
Traits: 0
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[Genotype Experiments](#)

Quick search...

What's New
March 2016
Genotype Data

T3oat Data Submission Report 2016-03-30

[Download tables to MS Excel](#)

Experiments and Trials

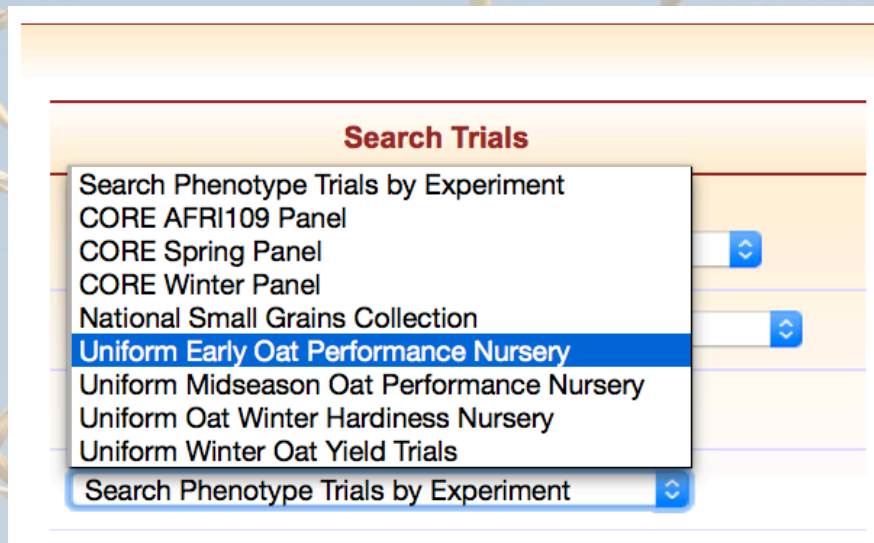
Phenotype Experiments	8	List all experiments
Phenotype Trials	1103	List all trials
Genotype Trials	19	List all trials
CAP data programs	44	

Lines

Line records	16394	List or query line names by creation date
Breeding programs	86	

Section 2: Completing the trial description template

- Experiments are used to link related phenotype trials in T3
- Existing experiments are also listed on the homepage in the “Search Trials by Experiment” tool
- This tool returns a list of trials within the selected experiment



The screenshot shows a web interface titled "Search Trials". It features a dropdown menu with the following options: "Search Phenotype Trials by Experiment", "CORE AFRI109 Panel", "CORE Spring Panel", "CORE Winter Panel", "National Small Grains Collection", "Uniform Early Oat Performance Nursery" (highlighted in blue), "Uniform Midseason Oat Performance Nursery", "Uniform Oat Winter Hardiness Nursery", and "Uniform Winter Oat Yield Trials". Below the dropdown is a search input field with a magnifying glass icon.

Trials from Experiment Uniform Early Oat Performance Nursery

Year	Trial Name	Traits
2015	UEOPN_2015_Aberdeen	heading date, grain yield
2015	UEOPN_2015_Beresford	heading date, plant height, lodging incidence, test weight, grain yield
2015	UEOPN_2015_Brookings	heading date, plant height, test weight, grain yield
2015	UEOPN_2015_Lamberton	lodging incidence

Section 2: Completing the trial description template

Multiple trials can be loaded using a single submission document

- All of the trials loaded must be from the same data program
- Each additional trial should fill the next available column
- The notes box can be moved or removed from any of the templates

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Trial Submission Form														
2	Template version	4Dec12													
3	Crop	oat													
4	Breeding Program Code	CDC-D													
5		TRIAL #1	TRIAL #2												
6	Trial Name	UEOPN_2015_Saskatoon	UEOPN_2014_Saskatoon												
7	Trial Year	2015	2014												
8	Experiment Name	Uniform Early Oat Perform	Uniform Early Oat Performance Nursery												
9	Location	Saskatoon, SK-CAN	Saskatoon, SK-CAN												
10	Latitude of field	52.153467	52.146691												
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15	Harvest date	9/21/2015	9/1/2014												
16	Begin weather date														
17	Greenhouse trial? (yes or no)	no	no												
18	Seeding rate (seeds/m ²)	254	254												
19	Experimental design	RCBD	RCBD												
20	Number of entries	24	23												
21	Number of replications	3	3												
22	Plot size (m ²)	5.52	5.52												
23	Harvested area (m ²)	4.32	4.32												
24	Irrigation (yes or no)	no	no												
25	Other remarks	The UMOPN was in a pod We had delayed seeding due to a wet spring at													
26															

Notes

Row headings with a green background show the required fields. Required fields also have an asterisk (*) in these notes.

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***Trial Name:** Format is "Experiment_YYYY_Location". You are free to choose an experiment name, which should be short but descriptive, and can be used as an additional method of linking trials together later in the form. YYYY= trial year; for winter trials that are planted and harvested in different calendar years please use the year that the trial was harvested. Location= specific location of the trial, usually a nearby settlement. The trial name in its entirety should be unique.

***Trial Year:** Year in which the trial was or would have been harvested.

Experiment Name: Experiment is one hierarchical level above trial and can be used to link trials in T3/Oat. The drop down menu "Search Trials by Experiment" on the T3/Oat homepage can be used to view existing experiments. Experiment name should be self-explanatory but it can be coded when used as part of a trial name (see examples in this template).

***Location:** Format for USA and Canada is <city/town>, <2 letter state/province abbreviation> followed by "-CAN" or "-USA". Format for trials conducted in other countries is <city/town>, <country>.

***Latitude and Longitude of field:** Decimal degrees format without a degree symbol. There is a converter at <http://boulter.com/gps/>. GPS coordinates can be found by address at <http://itouchmap.com/latlong.html>.

***Collaborator:** Name of principal scientist.

Experiment description: Self-assigned. Limit 300 characters.

***Planting date:** This should be the **one** date on which planting was started. Use the Excel "Text"

Section 3: Completing the trial means template

The notes section contains nearly all of the information needed to fill out the trial means template, apart from:

- Trait names (pale green headings)

This information can be found under the “About T3” menu

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Phenotype Results																	
2	Crop	oat																
3	*Trial Code	*Line Name	*Check	grain yield	plant height													
4	UEOPN_2008_Ames	*Trial Mean		349.7492	89.093													
5	UEOPN_2008_Ames	*Std. Error																
6	UEOPN_2008_Ames	*Replications		2	2													
7	UEOPN_2008_Ames	OTEE	1	296.91	89.002													
8	UEOPN_2008_Ames	IL01-5276	0	374.4488	89.002													
9	UEOPN_2008_Ames	IL02-8658	0	442.6275	83.998													
10	UEOPN_2008_Ames	DON	1	354.6225	75.006													
11	UEOPN_2008_Ames	IA02130-2-2	0	344.3325	89.002													
12	UEOPN_2008_Ames	CLINTFORD	1	327.135	87.008													
13	UEOPN_2008_Ames	P021A1-78-1	0	394.7513	89.002													
14	UEOPN_2008_Ames	P0528A1-1	0	378.2175	87.998													
15	UEOPN_2008_Ames	ANDREW	1	263.7938	90.005													
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		
29																		

Notes

Fields with an asterisk (*) are required.
Information about the trial and all of the lines must already have been loaded to T3 using the Trial Description template and the Line Submission template.

***Trial Code**
Use the same trial code as the corresponding Trial Description (Experiment_YYYY_Location). Multiple trials can be loaded using this form, one below another, but each row of data needs to contain the relevant trial code.

***Line Name**
The names can either be the primary line name or an alias, formatted as they appear in the database. The first three rows of each trial are reserved for summary statistics, and the corresponding cells in the *Line Name column need to contain the following text, precisely as shown:

***Trial Mean**
***Std. Error**
***Replications**
The trial mean may be calculated with or without checks, and a weighted mean can be submitted, each at your discretion. For an augmented design, where experimental lines are unreplicated but there are replicated checks, the checks are used to estimate the standard error (square root of the error variance). For designs where experimental lines are replicated, the standard error should be $\sqrt{\text{error var}/\text{num rep}}$. The number of replications should refer to experimental lines and not checks.

***Check**
Enter 1 to indicate that the line was a check and 0 if it was not. Leave each of the cells corresponding to *Trial Mean, *Std. Error and *Replications, empty.

Trait names
The remaining columns (pale green) are used to enter trait names. Allowed trait names can be found under the About T3 menu> Trait Descriptions. Contact the curator if you do not see the trait that you require. Additional columns can be added to this template as necessary.

Phenotype values

Section 3: Completing the trial means template

To find the phenotypic traits that are available in T3/Oat

- Choose the About T3 menu> Trait Descriptions

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Section 3: Completing the trial means template

- Use the phenotypic traits in the first column of the table as headings in the submission document
- Contact the curator if you do not find an appropriate trait

Trait Descriptions

Abiotic stress	Ontology	Description	Min	Max	Unit	Unit info
<u>freeze damage severity</u>		Severity of the symptoms of freeze damage observed in a plot; plots rated 0 exhibit no freeze damage, plots rated 9 show severe freeze damage symptoms.	0	9	0-9	Rating 0 to 9
<u>storm damage severity</u>		Severity of the damage inflicted by stormy weather; no damage= 1, total damage and loss of plot= 5.	1	5	1-5	Rating 1 to 5
<u>winter stress severity</u>		Mid-winter rating of the severity of the symptoms of winter stress observed in a plot; plots rated 0 exhibit no signs of winter stress, plots rated 9 show severe leaf damage or leaves that are purple in color.	0	9	0-9	Rating 0 to 9
<u>winter survival</u>		Percentage of plants in a plot sown in fall that are still growing in spring.	0	100	%	Percent
Agronomic	Ontology	Description	Min	Max	Unit	Unit info

Overall rating of agronomical attributes and health of oat plants in

Section 3: Completing the trial means template

The columns in the pale green section can be added to and removed as needed to provide trial means for any of the phenotypic traits listed in the “Trait Descriptions” table

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Phenotype Results																	
2	Crop	oat																
3	*Trial Code	*Line Name	*Check	grain yield	plant height													
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Information about the trial and all of the lines must already have been loaded to T3 using the Trial Description template and the Line Submission template.

***Trial Code**
Use the same trial code as the corresponding Trial Description (Experiment_YYYY_Location). Multiple trials can be loaded using this form, one below another, but each row of data needs to contain the relevant trial code.

***Line Name**
The names can either be the primary line name or an alias, formatted as they appear in the database. The first three rows of each trial are reserved for summary statistics, and the corresponding cells in the *Line Name column need to contain the following text, precisely as shown:

***Trial Mean**
***Std. Error**
***Replications**
The trial mean may be calculated with or without checks, and a weighted mean can be submitted, each at your discretion. For an augmented design, where experimental lines are unreplicated but there are replicated checks, the checks are used to estimate the standard error (square root of the error variance). For designs where experimental lines are replicated, the standard error should be $\sqrt{\text{error var}/\text{num rep}}$. The number of replications should refer to experimental lines and not checks.

***Check**
Enter 1 to indicate that the line was a check and 0 if it was not. Leave each of the cells corresponding to *Trial Mean, *Std. Error and *Replications, empty.

Trait names
The remaining columns (pale green) are used to enter trait names. Allowed trait names can be found under the About T3 menu> Trait Descriptions. Contact the curator if you do not see the trait that you require. Additional columns can be added to this template as necessary.

Phenotype values

Section 3: Completing the trial metadata template

Multiple trials can be loaded using a single submission document. Each row of data needs to contain the relevant trial code. The first three rows of each trial are reserved for the trial summary statistics.

- Each row of data needs to contain the relevant trial code
- The first three rows of each trial are reserved for the trial summary statistics

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R				
1	Phenotype Results																					
2	Crop	oat					Notes Fields with an asterisk (*) are required. Information about the trial and all of the lines must already have been loaded to T3 using the Trial Description template and the Line Submission template. *Trial Code Use the same trial code as the corresponding Trial Description (Experiment_YYYY_Location). Multiple trials can be loaded using this form, one below another, but each row of data needs to contain the relevant trial code. *Line Name The names can either be the primary line name or an alias, formatted as they appear in the database. The first three rows of each trial are reserved for summary statistics, and the corresponding cells in the *Line Name column need to contain the following text, precisely as shown: *Trial Mean *Std. Error *Replications The trial mean may be calculated with or without checks, and a weighted mean can be submitted, each at your discretion. For an augmented design, where experimental lines are unreplicated but there are replicated checks, the checks are used to estimate the standard error (square root of the error variance). For designs where experimental lines are replicated, the standard error should be sqrt(error var/num rep). The number of replications should refer to experimental lines and not checks. *Check Enter 1 to indicate that the line was a check and 0 if it was not. Leave each of the cells corresponding to *Trial Mean, *Std. Error and *Replications, empty. Trait names The remaining columns (pale green) are used to enter trait names. Allowed trait names can be found under the About T3 menu> Trait Descriptions. Contact the curator if you do not see the trait that you require. Additional columns can be added to this template as necessary. Phenotype values															
3	*Trial Code	*Line Name	*Check	grain yield	plant height																	
4	UEOPN_2008_Ames	*Trial Mean		349.7492	89.093																	
5	UEOPN_2008_Ames	*Std. Error																				
6	UEOPN_2008_Ames	*Replications		2	2																	
7	UEOPN_2008_Ames	OTEE	1	296.91	89.002																	
8	UEOPN_2008_Ames	IL01-5276	0	374.4488	89.002																	
9	UEOPN_2008_Ames	IL02-8658	0	442.6275	83.998																	
10	UEOPN_2008_Ames	DON	1	354.6225	75.006																	
11	UEOPN_2008_Ames	IA02130-2-2	0	344.3325	89.002																	
12	UEOPN_2008_Ames	CLINTFORD	1	327.135	87.008																	
13	UEOPN_2008_Ames	P021A1-78-1	0	394.7513	89.002																	
14	UEOPN_2008_Ames	P0528A1-1	0	378.2175	87.998																	
15	UEOPN_2008_Ames	ANDREW	1	263.7938	90.005																	
16	UMOPN_2006_Madison	*Trial Mean		427.1458	115.08																	
17	UMOPN_2006_Madison	*Std. Error																				
18	UMOPN_2006_Madison	*Replications		3	3																	
19	UMOPN_2006_Madison	IL00-4858	0	366	89.662																	
20	UMOPN_2006_Madison	IL00-7267	0	406.5	95.758																	
21	UMOPN_2006_Madison	IL00-11278	0	322.875	109.98																	
22	UMOPN_2006_Madison	OGLE	1	498.375	111.76																	
23	UMOPN_2006_Madison	P9741A41-4-6-7	0	483	109.22																	
24	UMOPN_2006_Madison	P021A1-66	0	393.375	116.84																	
25	UMOPN_2006_Madison	P0216A1-1	0	478.875	115.06																	
26	UMOPN_2006_Madison	IA01063-2	0	390.375	106.68																	
27	UMOPN_2006_Madison	IA01160-3-1	0	483.75	101.6																	
28	UMOPN_2006_Madison	IA01231-4-1	0	544.125	115.06																	
29	UMOPN_2006_Madison	CLINTFORD64	1	331.125	122.68																	

ction 3: Completing the trial me template

e names submitted in this document must be present in T
e refer to T3/Oat tutorial 1 for instructions on how to:
rrectly format line names for T3/Oat
arch for existing T3 line records using “Select Lines by Pro
d new line records to T3/Oat

All line names submitted in this document must be present in T3/Oat. Please refer to T3/Oat tutorial 1 for instructions on how to:

- Correctly format line names for T3/Oat
- Search for existing T3 line records using “Select Lines by Properties”
- Add new line records to T3/Oat

[illegible]

Section 4.1: Test loading the trial description template

- Navigate to the Oat Sandbox at <https://t3sandbox.org/t3/sandbox/oat/>
- The curation menu will appear once you register and login
- Choose the Curate menu> Phenotype Trials

The screenshot displays the T3/Oat Sandbox website. At the top right, there is a "Contact Us" button. The main navigation bar includes links for Home, Select, Analyze, Download, Curate, and About T3. A dropdown menu is open under the "Curate" link, showing options: Lines, Pedigrees, Phenotype Trials (highlighted), Phenotype Results, CSR Data, Delete Trials and Experiments, Traits and Genetic Characters, Genotype Experiments, Genotype Results, Maps, Markers, and Contributing Data Programs.

Quick Links

- Current selections:
- [Lines](#): 0
- [Markers](#): All
- [Traits](#): 0
- [Phenotype Trials](#)
- [Genotype Experiments](#)

Quick search...

What's New

February 2016

Genetic Maps

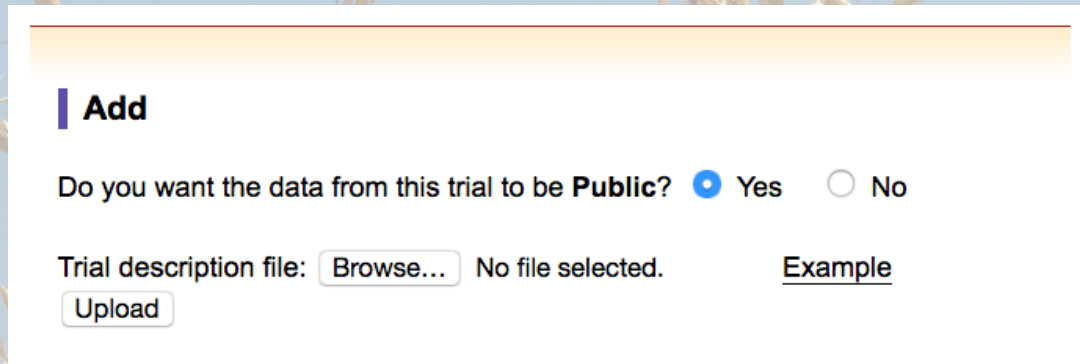
Home: T3/Oat

Welcome to T3/Oat! T3/Oat is the repository for oat genetic data generated by the USDA-ARS National Oat Genome Project. T3/Oat is the web portal for wheat and barley data generated by the USDA-ARS National Wheat Genome Project (T-CAP), funded by the National Institute for Food and Agriculture (NIFA) of the US Department of Agriculture.

T3/Oat is the repository for oat genetic data generated by the USDA-ARS National Oat Genome Project. T3/Oat is the web portal for wheat and barley data generated by the USDA-ARS National Wheat Genome Project (T-CAP), funded by the National Institute for Food and Agriculture (NIFA) of the US Department of Agriculture.

Section 4.1: Test loading the trial description template

The sandbox allows you to test load your template. The Oat Sandbox reverts to an exact copy of T3/Oat overnight.



A screenshot of a web form titled "Add" with a blue vertical bar to its left. The form has a white background and a thin red border at the top. It contains a question about data privacy, a file upload section, and a link to an example.

Add

Do you want the data from this trial to be **Public**? ☒ Yes ☐ No

Trial description file: No file selected. [Example](#)

It is possible to load “private data” to the main T3/Oat site. Private data is only visible to T3/Oat users that are designated as collaborators by the site administrators. Data may remain private for a limited time only. Please contact the curator if you are interested in this option.

Section 4.1: Test loading the trial description template

T3 will highlight illegal entries in your uploaded file

e.g. incorrect date format

When there are no illegal entries a validation window will appear that shows how T3 has read the upload document. Please take the time to validate your data.

The first column indicates whether the trial is new to T3/Oat, or whether the upload will update existing trial information.

Add/Update Experiment Annotations: Validation

Error: Please use *m/d/yyyy* format for Planting date, e.g. "5/9/2012" instead of "05/18/2015".

[Return](#)

Add/Update Experiment Annotations: Validation

The following data were found in the uploaded file.

Status	Trial Name	Experiment	Breeding Program	Collaborator	Location	Latitude
Update	UEOPN_2015_Saskatoon	Uniform Early Oat Performance Nursery	CDC-D	Aaron D. Beattie	Saskatoon, SK-CAN	52.153467
Update	UEOPN_2014_Saskatoon	Uniform Early Oat Performance Nursery	CDC-D	Aaron D. Beattie	Saskatoon, SK-CAN	52.146691

If Status is "Update", this Trial has been loaded previously and the values shown will replace the existing ones.

[Accept](#)

[Cancel](#)

Don't forget to "Accept" the upload if the information is correct.

Section 4.2: Test loading the trial means template

- Navigate to the Oat Sandbox at <https://t3sandbox.org/t3/sandbox/oat/>
- The curation menu will appear once you register and login
- Choose the Curate menu> Phenotype Results

The screenshot shows the T3/Oat Sandbox website. At the top, there is a navigation bar with links: Home, Select, Analyze, Download, Curate, and About T3. A 'Contact Us' link is also visible in the top right. The main content area is divided into several sections. On the left, there is a 'Quick Links' section with 'Current selections:' and links for 'Lines: 0', 'Markers: All', 'Traits: 0', 'Phenotype Trials', and 'Genotype Experiments'. Below this is a 'What's New' section dated February 2016, mentioning 'Genetic Maps'. The central part of the page features a 'Home: T3/Oat' section with a 'Welcome to' message and a list of contributing data programs, including Gabe Gusmini, Joe Lutz (Genetics), Bruce Roskens, Nicholas Tinker, and Kay Simmons. A dropdown menu is open under the 'Curate' link, showing options: Lines, Pedigrees, Phenotype Trials, Phenotype Results (highlighted), CSR Data, Delete Trials and Experiments, Traits and Genetic Characters, Genotype Experiments, Genotype Results, Maps, Markers, and Contributing Data Programs. The right side of the page contains text about the Global Oat Genetics Database, mentioning it was initiated in January 2014 by Jannink and Gerard Lazo (USDA-ARS), and that it was developed for The Triticeae Toolbox (T3), funded by the National Institute for Food and Agriculture (NIFA) of the US.

T3/Oat Sandbox

Home Select ▾ Analyze ▾ Download ▾ Curate ▾ About T3 ▾

Quick Links

Current selections:

- [Lines: 0](#)
- [Markers: All](#)
- [Traits: 0](#)
- [Phenotype Trials](#)
- [Genotype Experiments](#)

Quick search...

What's New

February 2016

Genetic Maps

Home: T3/Oat

Welcome to

T3/Oat is the repository for the oat data for the Global Oat Genetics Database, a project initiated in January 2014 by

- Gabe Gusmini
- Joe Lutz (Genetics)
- Bruce Roskens
- Nicholas Tinker
- Kay Simmons, and

For more information, please contact the T3/Oat team.

Jannink, and Gerard Lazo (USDA-ARS)

The T3/Oat was developed for The Triticeae Toolbox (T3). T3 is the web portal for wheat and barley data for the T-CAP project (T-CAP), funded by the National Institute for Food and Agriculture (NIFA) of the US

Curate

- Lines
- Pedigrees
- Phenotype Trials
- Phenotype Results**
- CSR Data
- Delete Trials and Experiments
- Traits and Genetic Characters
- Genotype Experiments
- Genotype Results
- Maps
- Markers
- Contributing Data Programs

Section 4.2: Test loading the trial means template

Select your completed trial means template to test load it in the Oat Sandbox

Trial Means

The Means file contains, for each trait, one value for each line in the Trial: the mean over all plots for that line.

Means file: No file selected.

[Example](#)

T3 will then highlight any illegal entries in your uploaded file
e.g. an out of bounds phenotype value

Phenotype Data Validation

Error, row 14: Value out of bounds. P0528A1-1, grain yield = 10000

Section 4.2: Test loading the trial means template

The “Phenotype Data Validation” step outlines how T3 has read the uploaded file. Please take the time to validate your data.

Don't forget to “Accept” the upload if the information is correct.

Phenotype Data Validation

Data in the uploaded file

File: *PhenotypeSubmissionFormMultitrial_Oat.xls*

Data read for 1 trials: **UMOPN_2006_Madison**

Data read for 2 traits, to the first empty column.

*Trial Code	*Line Name	*Check	grain yield	plant height
UMOPN_2006_Madison	*Trial Mean		427.145833333333	115.076111111111
UMOPN_2006_Madison	*Std. Error			
UMOPN_2006_Madison	*Replications		3	3
UMOPN_2006_Madison	IL00-4858	0	366	89.662
UMOPN_2006_Madison	IL00-7267	0	406.5	95.758
UMOPN_2006_Madison	IL00-11278	0	322.875	109.982
UMOPN_2006_Madison	OGLE	1	498.375	111.76
UMOPN_2006_Madison	P9741A41-4-6-7 UMOPN	0	483	109.22
UMOPN_2006_Madison	P021A1-66	0	393.375	116.84
UMOPN_2006_Madison	P0216A1-1	0	478.875	115.062
UMOPN_2006_Madison	IA01063-2	0	390.375	106.68
UMOPN_2006_Madison	IA01160-3-1	0	483.75	101.6
UMOPN_2006_Madison	IA01231-4-1	0	544.125	115.062
UMOPN_2006_Madison	CLINTLAND64	1	331.125	122.682
UMOPN_2006_Madison	SD031128	0	374.25	115.062
UMOPN_2006_Madison	SD030888	0	451.125	98.298

Section 5: Submitting the completed templates to T3/Oat

Finally, submit your documents to the curator for upload to T3/Oat

- Navigate to the Data Submission page
- Click the “Submit” button

The screenshot shows the T3/Oat Sandbox website. At the top, there is a navigation bar with links: Home, Select, Analyze, Download, Curate, and About T3. A 'Contact Us' link is also visible in the top right. The main heading is 'T3/Oat Sandbox'. Below the navigation bar, there is a 'Quick Links' section on the left with links for 'Current selections:', 'Lines: 0', 'Markers: All', 'Traits: 0', 'Phenotype Trials', and 'Genotype Experiments'. A search bar is also present. The 'Data Submission' section is highlighted, containing instructions and a 'Submit' button. A red arrow points from the 'Submit' button in the instructions to the 'Submit' button in the 'Quick Links' section. The 'What's New' section at the bottom left shows the date 'February 2016' and the title 'Genetic Maps'.

T3/Oat Sandbox

Home Select ▾ Analyze ▾ Download ▾ Curate ▾ About T3 ▾

Quick Links

Current selections:
[Lines: 0](#)
[Markers: All](#)
[Traits: 0](#)
[Phenotype Trials](#)
[Genotype Experiments](#)

Quick search...

What's New
February 2016
Genetic Maps

Data Submission

- Data templates are Excel, .txt, or .csv worksheets with column headers for the data T3 requires or accepts.
- The example values can be replaced with your own. Notes about the restrictions for valid data are included in the templates.
- Once populated, the files can be loaded into T3 using the **Curate** menu, which is available to registered Sandbox users.
- To make updates or corrections, edit your file and reload.
- Please use the [oat Sandbox](#) database for test-loading your files. When they're ready, click here to submit them to the T3 Curator for loading into the official database.

Instructions - Rules for filling in the templates, and sequence of submission

Tutorials

- [Lesson One](#). Germplasm file creation and upload
- [Lesson Two](#). (.pdf) Phenotype trial descriptions and data
- [Lesson Three](#). Genotype trial descriptions and data
- [Lesson Four](#). How to create germplasm line panels in T3

Section 5: Submitting the completed templates to T3/Oat

Data Submission

Please submit a data file for the curator to load into the production database. File names should not contain spaces.

Data Type

- ☐ Germplasm lines
- ☒ Phenotyping
 - ☐ Experiment annotation
 - ☐ Results
- ☒ Genotyping
 - ☐ Experiment annotation
 - ☐ Results

Comments

This file loads successfully in the Sandbox. ☐ Yes ☒ No
☐ This file contains phenotype data private to project members only.

File: No file selected.

You can submit files that do not successfully upload to the Oat Sandbox to receive help from the curator

Contact Us

Please contact us if you need help using T3/Oat

[Contact Us](#)

T3/Oat

[Home](#) [Select ▾](#) [Analyze ▾](#) [Download ▾](#) [Manage ▾](#) [About T3 ▾](#)

Quick Links

[Login/Register](#)

Current selections:

[Lines](#): 0

[Markers](#): All

[Traits](#): 0

[Phenotype Trials](#)

[Genotype Experiments](#)

Quick search...

What's New

February 2016

Genetic Maps

An expanded oat consensus map (50,668 markers) is now [available](#) in addition to the Framework Oat Consensus Map (7,202 markers) and the 12 component maps used to develop the consensus map.

Home: T3/Oat

Welcome to T3/Oat!

T3/Oat is the repository of oat phenotype and genotype data for the Global Oat Genetics Database, a project initiated in January 2014 by

- Gabe Gusmini (PepsiCo)
- Joe Lutz (General Mills)
- Bruce Roskens (Grain Millers)
- Nicholas Tinker (AAFC)
- Kay Simmons, Jack Okamuro, Jose Costa, Jean-Luc Jannink, and Gerard Lazo (USDA-ARS)

For more information see the [Oat Global](#) website.

T3/Oat is built using the database schema and software developed for [The Triticeae Toolbox](#) (T3). T3 is the web portal for wheat and barley data generated by the [Triticeae Coordinated Agricultural Project](#) (T-CAP), funded by the National Institute for Food and Agriculture ([NIFA](#)) of the US Department of Agriculture ([USDA](#)). [More...](#)

Participants: The templates and instructions for data submission are [here](#). If your data are not totally public, please check the [Data Usage Policy](#).

[Data submission](#)